

Precautions

On safety

- As the laser beam used in the CD player section is harmful to the eyes, do not attempt to disassemble the casing. Refer servicing to qualified personnel only.
- Should any solid object or liquid fall into the player, unplug the player, and have it checked by qualified personnel before operating it any further.
- Discs with non-standard shapes (e.g., heart, square, star) cannot be played on this player. Attempting to do so may damage the player. Do not use such discs.

Cleaning the cabinet

- Clean the cabinet, panel and controls with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder, or solvent, such as alcohol or benzine.

On power sources

- For AC operation, use the supplied AC power cord; do not use any other type.
- The player is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the player itself has been turned off.
- Unplug the player from the wall outlet when it is not to be used for an extended period of time.
- For battery operation, use six size D (R20) batteries.
- When the batteries are not to be used, remove them to avoid damage that can be caused by battery leakage or corrosion.
- The nameplate indicating operating voltage, power consumption, etc. is located at the bottom.

On placement

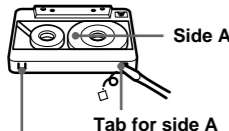
- Do not leave the player in a location near heat sources, or in a place subject to direct sunlight, excessive dust or mechanical shock.
- Do not place the player on an inclined or unstable place.
- Do not place anything within 10 mm of the side of the cabinet. The ventilation holes must be unobstructed for the player to operate properly and prolong the life of its components.
- If the player is left in a car parked in the sun, be sure to choose a location in the car where the player will not be subjected to the direct rays of the sun.
- Since a strong magnet is used for the speakers, keep personal credit cards using magnetic coding or spring-wound watches away from the player to prevent possible damage from the magnet.

On operation

- If the player is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lenses inside the CD player section. Should this occur, the player will not operate properly. In this case, remove the CD and wait about an hour for the moisture to evaporate.
- If the player has not been used for a long time, set it in the playback mode to warm it up for a few minutes before inserting a cassette.

Notes on cassettes

- Break off the cassette tab from side A or B to prevent accidental recording. If you want to reuse the tape for recording, cover the broken tab with adhesive tape.



Tab for side B

Tab for side A

- The use of a cassette with more than 90 minutes of play time is not recommended except for long, continuous recording or playback.

Notes on CDs

- Before playing, clean the CD with a cleaning cloth. Wipe the CD from the center out.



- Do not use solvents such as benzine, thinner, commercially available cleaners or anti-static spray intended for vinyl LPs.
 - Do not expose the CD to direct sunlight or heat sources such as hot air ducts, nor leave it in a car parked in direct sunlight as there can be a considerable rise in temperature inside the car.
 - Do not stick paper or sticker on the CD, nor scratch the surface of the CD.
 - After playing, store the CD in its case.
- If there is a scratch, dirt or fingerprints on the CD, it may cause tracking error.

About CD-Rs/CD-RWs

This player can play CD-Rs/CD-RWs recorded in the CD-DA format*, but playback capability may vary depending on the quality of the disc and the condition of the recording device.

* CD-DA is the abbreviation for Compact Disc Digital Audio. It is a recording standard used for Audio CDs.

If you have any questions or problems concerning your player, please consult your nearest Sony dealer.

Troubleshooting

General

The power does not come on.

- Make sure the batteries are inserted correctly.
- Replace all the batteries with new ones if they are weak.
- You cannot turn on the player with the remote when you operate the player on batteries.

The power is not on, and "bAttErY" and "Error" are displayed alternately.

- Make sure the batteries are inserted correctly.
- Replace all the batteries with new ones if they are weak.

There is no audio.

- Adjust the volume.
- Unplug the headphones when listening through speakers.

Noise is heard.

- Someone is using a portable telephone or other equipment that emits radio waves near the player. →Move the portable telephone, etc., away from the player.

CD Player

The CD does not play or "no DISC" lights in the display even when a CD is in place.

- Place the CD with the label surface up.
- Clean the CD.
- Take out the CD and leave the CD compartment open for about an hour to dry moisture condensation.
- The CD-R/CD-RW was not finalized. Finalize the CD-R/CD-RW with the recording device.
- There is a problem with the quality of the CD-R/CD-RW, recording device or application software.

The sound drops out.

- Reduce the volume.
- Clean the CD, or replace it if the CD is badly damaged.
- Place the player in a location free from vibration.
- Clean the lens with a commercially available blower.
- The sound may drop out or noise may be heard when using poor quality CD-Rs/CD-RWs or if there is a problem with the recording device or application software.

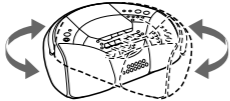
Radio

Reception is poor.

- Reorient the antenna to improve FM reception.



- Reorient the player itself to improve AM reception.



The audio is weak or has poor quality.

- Replace all the batteries with new ones if they are weak.
- Move the player away from the TV.

The picture of your TV becomes unstable.

- If you are listening to an FM program near the TV with an indoor antenna, move the player away from the TV.

Tape Player

The tape does not move when you press an operation button.

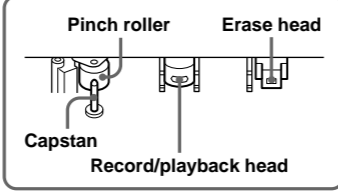
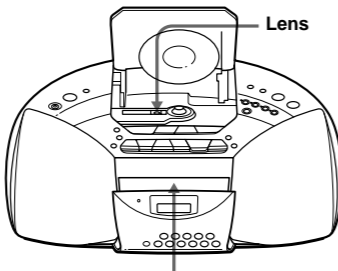
- Close the cassette compartment securely.

The REC button does not function or the tape does not play or record.

- Make sure the safety tab on the cassette is in place.

Poor or distorted playback, recording or erasing quality.

- Clean the heads, pinch roller and capstan with a cleaning swab slightly moistened with cleaning fluid or alcohol.
- Replace all the batteries with new ones if they are weak.
- TYPE II (high position) or TYPE IV (metal) tape is being used. Use TYPE I (normal) tape only.
- Demagnetize the heads using a commercially available tape head demagnetizer.



Remote

The remote does not function.

- Replace all the batteries in the remote with new ones if they are weak.
- Make sure that you are pointing the remote at the remote sensor on the player.
- Remove any obstacles in the path of the remote and the player.
- Make sure the remote sensor is not exposed to strong light such as direct sunlight or fluorescent lamp light.
- Move closer to the player when using the remote.

After trying the above remedies, if you still have problems, unplug the AC power cord and remove all the batteries. After all the indications in the display disappear, plug the power cord and insert the batteries again. If the problem persists, please consult your nearest Sony dealer.

Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
With 3.2-ohm loads, both channels driven from 150 - 6,300 Hz; rated 1.8 W per channel—minimum RMS power, with no more than 10 % total harmonic distortion in AC operation.

Other specifications

CD player section

System

Compact disc digital audio system

Laser diode properties

Material: GaAlAs

Wave length: 780 nm

Emission duration: Continuous

Laser output: Less than 44.6 μW

(This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)

Spindle speed

200 r/min (rpm) to 500 r/min (rpm)

(CLV)

Number of channels

2

Frequency response

20 - 20 000 Hz +1/−2 dB

Wow and flutter

Below measurable limit

Radio section

Frequency range

FM: 87.5 - 108 MHz

AM: 530 - 1 710 kHz

Antennas

FM: Telescopic antenna

AM: Built-in ferrite bar antenna

Cassette-corder section

Recording system

4-track 2 channel stereo

Fast winding time

Approx. 120 s (sec.) with Sony cassette C-60

Frequency response

TYPE I (normal): 80 - 10 000 Hz

General

Speaker

Full range: 10 cm dia., 3.2 ohms, cone type (2)

Outputs

Headphones jack (stereo minijack)

For 16 - 68 ohms impedance headphones

Power output

2.3 W + 2.3 W (at 3.2 ohms, 10% harmonic distortion)

Power requirements

For CD radio cassette-corder:

120V AC, 60 Hz

9 V DC, 6 size D (R20) batteries

For remote control:

3 V DC, 2 size AA (R6) batteries

Power consumption

AC 20 W

Battery life

For CD radio cassette-corder:

FM recording

Sony R20P: approx. 13.5 h

Sony alkaline LR20: approx. 20 h

Tape playback

Sony R20P: approx. 7.5 h

Sony alkaline LR20: approx. 15 h

CD playback

Sony R20P: approx. 2.5 h

Sony alkaline LR20: approx. 7 h

Dimensions
Approx. 386 × 166 × 252 mm (w/h/d) (15 1/2 × 6 5/8 × 10 inches) (incl. projecting parts)
Mass
Approx. 3.3 kg (7 lb. 4 oz) (incl. batteries)
Supplied accessory
AC power cord (1)
Remote control (1)
Headphones (1) (CFD-S500 only)

Design and specifications are subject to change without notice.

Optional accessories

Sony MDR headphone series

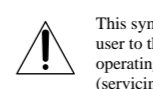
SONY

CD Radio Cassette- Corder

Operating Instructions



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION

The use of optical instruments with this product will increase eye hazard.

WARNING

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.

To prevent fire or shock hazard, do not place objects filled with liquids, such as vases, on the appliance.

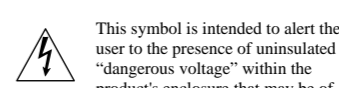
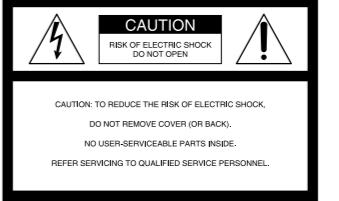
For customers in Canada

To prevent electric shock, match wide blade of plug to wide slot, fully insert.

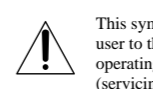
English

WARNING

To prevent fire or shock hazard, do not expose the player to rain or moisture.



CAUTION TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



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For customers in Canada

To prevent electric shock, match wide blade of plug to wide slot, fully insert.

Information

For customers in the USA

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Owner's Record

The model number is located at the bottom and the serial number is located in the battery compartment.

Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. _____

Serial No. _____

For customers in the USA

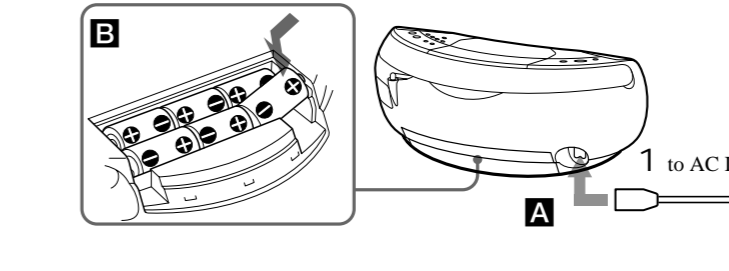
Please register this product on line at <http://www.sony.com/productregistration>. Proper registration will enable us to send you periodic mailings about new product, services and other important announcements. Registering your product will also allow us to contact you in the unlikely event that the product needs adjustment or modification. Thank you.

CFD-S400
CFD-S500

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Power Sources



Connect the AC power cord **A** or insert six size D (R20) batteries (not supplied) into the battery compartment **B**.

Notes

- Replace the batteries when the OPR/BATT indicator dims or when the player stops operating. Replace all the batteries with new ones. Before you replace the batteries, be sure to take out the CD from the player.
- To use the player on batteries, disconnect the AC power cord from the player.
- When you operate the player on batteries, you cannot turn on the player using the remote.

Preparing the remote **C**

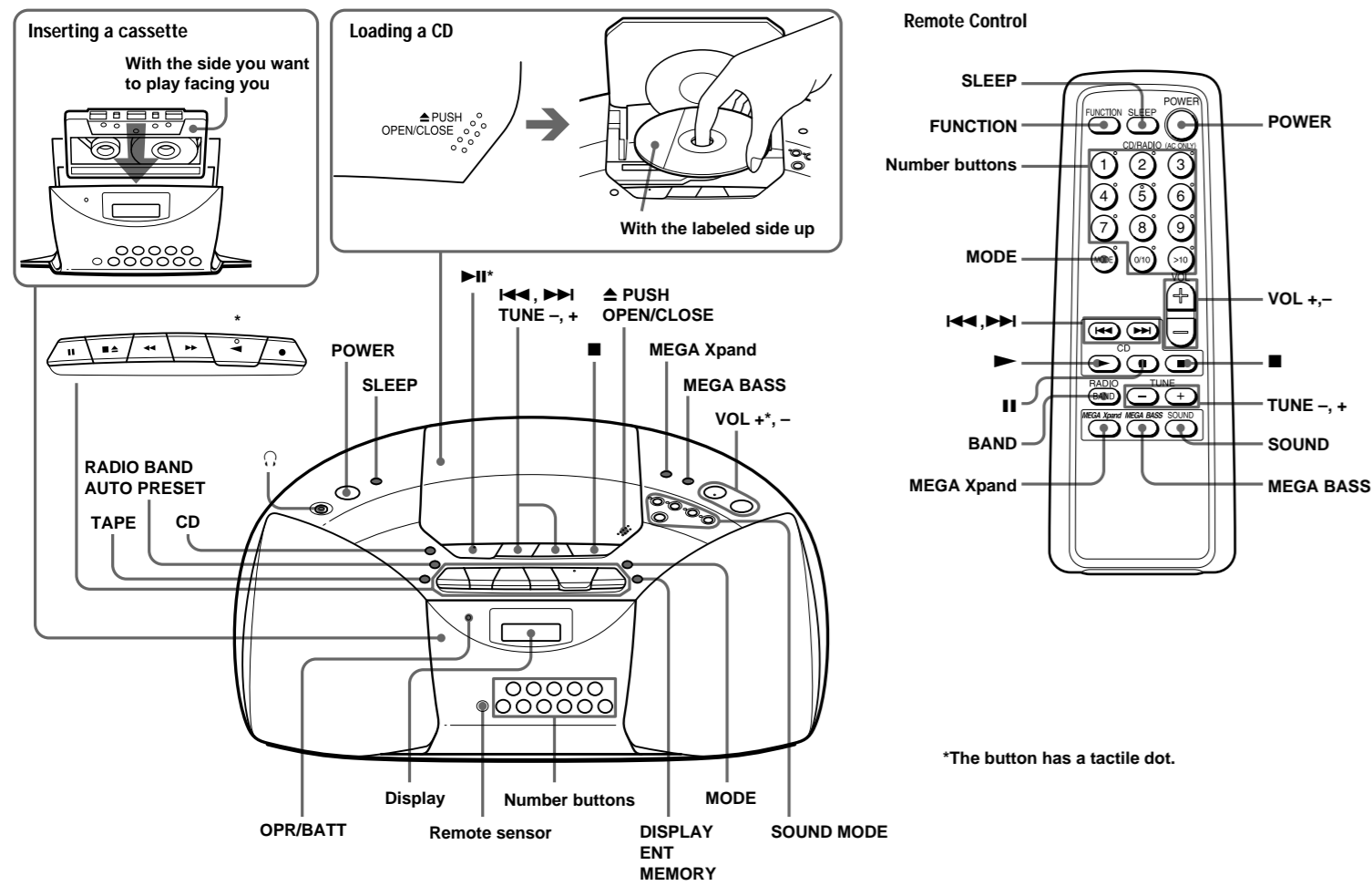
Insert two size AA (R6) batteries (not supplied).

Replacing battery

With normal use, the batteries should last for about six months. When the remote no longer operates the player, replace all the batteries with new ones.

<http://www.sony.net/>

Location of controls



To turn on/off the power

Press POWER.

To adjust the volume

Press VOL +, -.

To listen through headphones

Connect the headphones to the (headphones) jack.

Adjusting the sound emphasis

To Select the sound characteristic

Press one of the SOUND MODE buttons to select the audio emphasis you want. (On the remote, press SOUND repeatedly.)

Press	To get
ROCK	powerful, clean sounds, emphasizing low and high range audio
POP	light, bright sounds emphasizing high and middle range audio
JAZZ	percussive sounds, emphasizing bass audio
VOCAL	the presence of vocals, stressing middle range audio
FLAT	the whole dynamic range for music such as classical music

To reinforce the bass sound

Press MEGA BASS.

"MEGA BASS" appears in the display.

To return to normal sound, press the button again.

To get the MEGA Xpand effect

Press MEGA Xpand.

"MEGA Xpand" appears in the display.

You can get the effect of expansion of the sound field.

To return to normal sound, press the button again.

Playing a CD

- 1 Press CD (direct power-on).
- 2 Load a CD in the CD compartment.
- 3 Press to close the CD compartment.
- 4 Press .

The player plays all the tracks once.

To	Press
stop playback	
pause playback	
go to the next track	
go back to the previous track	
remove the CD	
locate a specific track directly*	a number button of the track.
locate a point while listening to the sound	(forward) or (backward) while playing until you find the point.
locate a point while observing the display	(forward) or (backward) in pause until you find the point.

* You cannot locate a specific track if "SHUF" or "PGM" is lit in the display. Turn off the indication by pressing .

Tip

To locate a track numbered over 10, press >10 first, then the corresponding number buttons.

Example: To play track number 23, press >10 first, then 2 and 3.

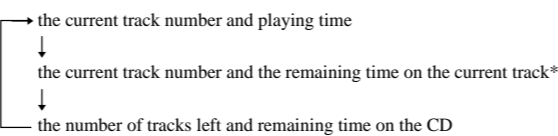
Using the display

To check the total track number and playing time

Press DISPLAY•ENT•MEMORY in stop mode (see fig.).

To check the remaining time

Press DISPLAY•ENT•MEMORY repeatedly while playing a CD. The display changes as follows:



* For a track whose number is more than 20, the remaining time appears as "-: -:" in the display.

Selecting the play mode

Press MODE until "REP 1" "REP ALL" "SHUF" "SHUF REP" "PGM" "PGM REP" appears in the display. Then proceed as follows:

To	Select	Then do this
repeat a single track	"REP 1"	Press the number button for the track you want to repeat.
repeat all tracks	"REP ALL"	Press .
shuffle play	"SHUF"	Press .
repeat tracks in random order	"SHUF REP"	Press .
program play	"PGM"	Press the number buttons for the tracks you want to program in the order you want up to 20 tracks (see fig.). Then press .
repeat programmed tracks	"PGM REP"	Press the number buttons for the tracks you want to program in the order you want up to 20 tracks. Then Press .

To cancel selected play mode

Press MODE until the selected mode disappears from the display.

To check the programmed track and playing order in the display

To check the order of tracks before play, press DISPLAY•ENT•MEMORY.

Every time you press the button, the track number appears in the programmed order.

To change the current program

Press once if the CD is stopped and twice if the CD is playing. The current program will be erased. Then create a new program following the programming procedure.

Tip

You can record your own program. After you've created the program, insert a blank tape and press to start recording.

Listening to the radio

- 1 Press RADIO BAND•AUTO PRESET until the band you want appears in the display (direct power-on). Each time you press the button, the indication changes as follows: "FM" → "AM".
- 2 Hold down TUNE + or - until the frequency digits begin to change in the display.

The player automatically scans the radio frequencies and stops when it finds a clear station.

If you can't tune in a station, press the button repeatedly to change the frequency step by step.

Tip

If the FM broadcast is noisy, press MODE until "Mono" appears in the display and the radio will play in monaural.

Presetting radio stations

You can store radio stations into the player's memory. You can preset up to 30 radio stations, 20 for FM and 10 for AM in any order.

- 1 Press RADIO BAND•AUTO PRESET to select the band.
- 2 Hold down RADIO BAND•AUTO PRESET for 2 seconds until "AUTO" flashes in the display.
- 3 Press DISPLAY•ENT•MEMORY.

The stations are stored in memory from the lower frequencies to the higher ones.

If a station cannot be preset automatically

You need to preset a station with a weak signal manually.

- 1 Press RADIO BAND•AUTO PRESET to select the band.
- 2 Tune in a station you want.
- 3 Hold down the number buttons that you want to preset the new station on for about 2 seconds. To select the preset number over 10, press >10 first, then the corresponding number buttons. You need to hold down the last number button to enter for about 2 seconds. (Example: To select 12, press >10 and 1 first, then hold down 2 for about 2 seconds.)

Playing preset radio stations

- 1 Press RADIO BAND•AUTO PRESET to select the band.
- 2 Press the number buttons to tune in the stored station.

To tune in a preset station over 10, press >10 first, then corresponding number buttons. (Example: To tune in a preset station 12, press >10 and 1 first, and then press 2.)

Playing a tape

- 1 Press TAPE (direct power-on).
- 2 Press to open the tape compartment and insert a recorded tape. Close the compartment. Use TYPE I (normal) tape only.
- 3 Press .

To	Press
stop playback	
fast-forward or rewind the tape	or
pause playback	
eject the cassette	

Recording

- 1 Press to open the tape compartment and insert a blank tape. Use TYPE I (normal) tape only.
- 2 Select the program source you want to record.
 - To record from the CD player**
Press CD and insert a CD (See "Playing a CD").
 - To record from the radio**
Press RADIO BAND•AUTO PRESET and tune in the station you want (See "Listening to the radio").
- 3 Press to start recording. (is depressed automatically.)

To	Press
stop recording	
pause recording	
	Press the button again to resume recording.

Tips

- Adjusting the volume or the audio emphasis will not affect the recording level.
- If the AM program makes a whistling sound after you've pressed in step 3, press MODE to select the position of ISS (Interference Suppress Switch) that most decreases the noise.
- For the best results, use the AC power as a power source for recording.
- To erase a recording, proceed as follows:
 - 1 Insert a tape with the recording you want to erase.
 - 2 Press TAPE.
 - 3 Press .